Application No. 10/593,188

Amendment Dated July 20, 2009

Reply to Office Action Dated March 19, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the

application:

**Listing of Claims:** 

1. (previously presented) A light pipe for use in particular in an electronic display

arrangement, comprising:

a transparent optical relay made of a single piece, designed to transmit light signals from

one of its ends referred to as an entry surface receiving light from a micro display to its other end

referred to as an exit surface going towards the eye of a user for viewing a virtual image, the pipe

including a diffractive component, said diffractive component being an element satisfying the

equation of an aspherical body of revolution, and being formed directly on said entry surface of

said relay.

2. (original) A pipe according to claim 1, wherein the diffractive component is an

element of the "kinoform" type.

3. (original) A pipe according to claim 1, wherein at least one of said surfaces is an

aspherical surface including a "working" surface through which the light passes and presenting

local curvature of sign that changes at least once.

2

Application No. 10/593,188 Amendment Dated July 20, 2009

Reply to Office Action Dated March 19, 2009

4. (original) A pipe according to claim 3, wherein said aspherical surface is a surface of revolution.

- 5. (original) A pipe according to claim 3, wherein said aspherical surface includes on said working surface at least one point of inflection in its radial profile for which the second derivative relative to radial distance from the center of the working surface passes through zero and changes sign.
- 6. (original) A pipe according to claim 1, wherein the image of the diffractive component has proximity of less than -4 diopters.
- 7. (original) A pipe according to claim 6, wherein the image of the diffractive component has proximity of less than -10 diopters.
- 8. (original) A pipe according to claim 1, wherein the image of the diffractive component has proximity greater than 0 diopters.
- 9. (original) A pipe according to claim 1, comprising an optical relay formed by a rectangular bar for transmitting light along its longitudinal axis referred to as a first axis, and presenting at one of its ends said entry surface, and at its other end, both a reflection wall inclined relative to said first axis and an exit surface having an axis of revolution contained in a longitudinal plane of symmetry.

Application No. 10/593,188 Amendment Dated July 20, 2009 Reply to Office Action Dated March 19, 2009

10. (cancelled)